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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/561,796	12/21/2005	Serge Jean Henri Bettonville	4702-38	5863

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NIXON & VANDERHYE, PC
901 NORTH GLEBE ROAD, 11TH FLOOR
ARLINGTON, VA 22203

EXAMINER	
WOOD, ELLEN S	

ART UNIT	PAPER NUMBER
4174	

MAIL DATE	DELIVERY MODE
12/10/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/561,796	BETTONVILLE ET AL.	
	Examiner	Art Unit	
	Ellen S. Wood	4174	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-11* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-11* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *21 December 2005* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *12/21/2005*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 101

1. 35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claim 11 is rejected under 35 U.S.C. 101 because the claimed recitation of a use, without setting forth any steps involved in the process, results in an improper definition of a process, i.e., results in a claim which is not a proper process claim under 35 U.S.C. 101. See for example *Ex parte Dunki*, 153 USPQ 678 (Bd.App. 1967) and *Clinical Products, Ltd.* v. *Brenner*, 255 F. Supp. 131, 149 USPQ 475 (D.D.C. 1966).

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claim 11 provides for the use of a resin as defined in any of claims 1 to 8 in a pressure pipe, but, since the claim does not set forth any steps involved in the method/process, it is unclear what method/process applicant is intending to encompass. A claim is indefinite where it merely recites a use without any active, positive steps delimiting how this use is actually practiced.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lustiger et al. (US 6,969,741, hereinafter "Lustiger") in view of Ogawa et al. (US 2004/0097650, hereinafter "Ogawa") and Funaki et al. (US 2004/0191440).

In regards to claims 1-8, Lustiger discloses various polyethylene compositions for molding such as pipes (col. 2 lines 5-6). In regards to the multimodal resin, Lustiger discloses the polyethylene blend compositions include a first polyethylene having a density from 0.910 to 0.930 g/cm^3 and a second polyethylene having a density of 0.945 to 0.975 g/cm^3 (abstract). Thus, the blend is bimodal according to Applicants' definition of a bimodal composition. In regards to the polyethylene resin composition, Lustiger discloses a blend of the polyethylene composition includes 65% to 35% by weight of the first polyethylene and 35% to 65% by weight of the second polyethylene (cols. 4-5 lines 64-67 and 1-3). In regards to the ionomer, Lustiger discloses that an additive, such as an ionomer, may be added to the polyethylene blend compositions and are typically used in amounts from 0 wt% to no more than about 15 wt% (col. 8 lines 50-53).

Lustiger discloses another embodiment includes a blend of 55% to 45% by weight of the first polyethylene and 45% to 55% by weight of the second polyethylene (col. 5

lines 4-10). Lustiger discloses that the first polyethylene of the polymer blends is a linear low density polyethylene (col. 6 lines 34-35). The density can range from 0.930 to 0.926 g/cm^3 (col. 6 lines 50-52). The melt index ranges from about 0.4 to about 3.0 g/10 min (col. 6 lines 57-60). The second polyethylene of the polymer blends is a high density polyethylene (col. 6 lines 63-64). The density can be of 0.970 g/cm^3 (col. 7 lines 4-5). The melt index can range from the upper limit of 150 g/10 min (col. 7 lines 11-15).

Lustiger is silent in regarding the specified ionomers used as the additive for the composition and the pressure pipe defined by Applicants claims.

In regards to claims 1-11, Ogawa discloses a thermoplastic elastomer composition comprising the following components (A) and (B), wherein a weight ratio of the component (A)/ the component (B) is from 5/95 to 95/5, or 10/90 to 90/10 [0039]. Component (A) can be widely selected from various thermoplastic resins known in the art such as polyethylene-based resins [0021]. Other components may be added to the resin such as ionomers, which are added in small amounts compared to that of the total weight of the resin [0064].

Ogawa discloses that component (B) are hydrogenated products of copolymers. The instant applicant discloses that "multimodal" is having at least two components of different molecular weights and compositions (pg. 2 lines 28-30). The examiner notes that component (A) and component (B) are different compositions and are different molecular weights, thus the composition is bimodal.

Ogawa discloses that specific examples of coagents are copolymers of ethylene and one or more comonomers selected from unsaturated monocarboxylic acids and unsaturated dicarboxylic acids such as maleic acid [0064].

Ogawa discloses the molded article from the elastomer composition has superior heat resistance, flexibility, and shape retaining [0001]. This molded article can be a pipe [0098]. The examiner notes that this is considered a pressure pipe.

In regards to claims 9-11, Funaki discloses a thermoplastic resin that may be blended with one or more polyolefin resins such as high-density polyethylene (HDPE), low-density polyethylene (LDPE), and ultrahigh molecular polyethylene [0073]. An impacting reducing material may be added to the resin, such as an ionomer polymer [0081]. The ionomer polymer is one having at least some of carboxyl groups of a copolymer of an olefin with an unsaturated carboxylic acid ionized by neutralization with metal ions [0085]. The piping hose has excellent heat resistance, chemical resistance, weather resistance, and can be used in a wide range of fields such as pressure pipes [0003]. It would be obvious to one of ordinary skill at the time of the invention to combine the specified ionomers of Ogawa and Funaki with the polyethylene compositions of Lustiger to provide a pipe resin that would have improved physical properties, such as environmental stress crack resistance, impact strength, and thermoplastic advantages (Funaki pg. 0003).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ellen S. Wood whose telephone number is 571-272-3450. The examiner can normally be reached on Monday-Thursday 7:30am-5:00pm EST Friday Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, D. Lawrence Tarazano can be reached on 571-272-1515. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/D. Lawrence Tarazano/
Supervisory Patent Examiner, Art Unit 4174

Ellen S Wood
Examiner
Art Unit 4174